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The ACQUISITION ENVIRONMENT, SAFETY, AND OCCUPATIONAL HEALTH **MONITOR**

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AIR FORCE'S STRATEGIC VISION FOR THE 21st CENTURY CALLS FOR A TRANSFORMATION TO SPACE AND AIR POWER



"One sign of change in the Air Force will be how the definition of the Air Force operator develops in the future. At its birth, all Air Force operators wore wings...In the future, any military or civilian member who is experienced in the employment and doctrine of air and space power will be considered an operator."

To meet the changing nature of future threats and military operations, the Air Force has established a strategic vision for the 21st century, redefined its core competencies, and developed the *Air Force Long Range Plan (LRP)* that defines the essential activities to realize its future vision.

The U.S. Air Force's strategic vision for the 21st century is based on *Global Engagement*. This vision flows from the National Security Strategy and is grounded in the Chairman and Joint Chief of Staff

Contents

- AF's 21st Century Strategic Vision
- AF Strategic Planning Process
- ESOH TPIPT Process Supports OH Strategic Planning Process
- SG's Corporate Investment Strategy

Community Cross-Feed

- Lt. Col. Ashworth Speaks with the MONITOR
- Future ESOH Challenges
- Overview of JASPPA
- Upcoming Events



concept of how we will fight in the early 21st Century - Joint Vision 2010. It bodies the belief that in the 21st century, the strategic instrument of choice will be air and space power.

The Air Force's core competencies, summarized in Figure 1, represent the fundamental contribution that the Air Force will make to the joint war fighting team in the future environment. In defining its core competencies, the Air Force is committed to designing effectiveness into war fighting activities and efficiencies into all support activities. In order to ensure the aggressive reduction of infrastructure costs, all support activities will be run like a business using "best practices" gleaned from top performers.

Sustaining Air Force Core Competency in the 21st Century

- **Air and Space Superiority:** This core competency allows joint forces to dominate enemy operations in all dimensions: land, sea, air and space. Air and space superiority provides joint commanders both freedom from attack and freedom to attack.
- **Global Attack:** The ability of the Air Force to attack rapidly anywhere on the globe at any time can be achieved through this special core competency. The Air Force will use this capability to rapidly provide tailored air and space capabilities to future unified CINCs.
- **Rapid Global Mobility:** This capability enables the Air Force to continually provide timely, responsive support to the full range of contingencies and conflicts to assist joint forces and multinational efforts. The ability to move rapidly to any spot on the globe allows the US to respond quickly and decisively to unexpected future challenges.
- **Precision Engagement:** Precision Engagement enables US forces to locate the target, provide responsive command and control, apply selective force, assess the level of success and retain the ability to re-engage when required. This core competency provides *reliable* precision - the ability to deliver the desired effect - but with minimal risk and collateral damage.
- **Information Superiority:** Information Superiority is the ability to collect, control, exploit, and defend information while denying an adversary the ability to do the same. These capabilities will provide military commanders an integrated and interactive picture of the entire battlespace.
- **Agile Combat Support:** Agile Combat Support allows combat commanders to improve the responsiveness, deployability and sustainability of US forces through air and space power. This capability will enable a shift from massive deployed forward support to forces tailored for rapid mobilization.



Figure 1. Air Force's Core Competencies in the 21st Century

The Air Force *Long Range Plan (LRP)* provides a framework for change based on measurable and accountable implementation steps. The LRP delineates organizational priorities through establishing 16 directives statements (see Figure 2) and 42 associated planning end states (see the internet version of the MONITOR). The end states identify future capabilities that the Air Force must acquire in order to build the world's most respected Air and Space Force for the 21st century.

This issue of the MONITOR provides additional details related to the Air Force's strategic planning process and provides an example of how this process was used by the SG community to address a systemic need (e.g., ergonomics) across the Air Force at a significant cost savings to the service. ■

Directives*

- Integrating Air and Space
- Future Space Operations
- Ballistic and Cruise Missile Defense
- Battle Management/Command and Control (BM/C2)
- Unmanned Aerial Vehicles (UAVs)
- Presence/Power Projection
- Nuclear Weapons Operations, Planning, and Support
- Information Operations (IO)
- Force Mix
- Career Patterns
- Core Values
- Acquisition Management
- Test and Evaluation (T&E) Infrastructure
- Sustainment
- Basing
- Innovation

Figure 2. Directives Established in the AF Long Range Plan (LRP)

**The internet version of the MONITOR provides additional details related to end states associated with these directives.*

OVERVIEW OF THE AIR FORCE'S STRATEGIC PLANNING PROCESS

Figure 3 summarizes the Air Force's strategic planning process used to establish and execute "corporate priorities" for *Global Engagement*. The link between the Mission Area Plans (MAPs)/Mission Support Plans (MSPs) and the Air Force Strategic Plan (formerly known as the Air Force Long Range Plan) is a key component in executing this vision. MAPs/MSPs are generated on a two year cycle and are products of the Air Force Modernization Planning Process, AFPD 10-14 (see Figure 4). MAPs/MSPs serve as major guides for changing doctrine, tactics, training and procedures and investing scarce dollars to modernize the Air Force. HQ AFMC supports the development of the products of the Modernization Planning Process (i.e., MAPs/MSPs) through Technical Planning Integrated Product Teams (see related article on [page 4](#) for the ESOH TPIPT's input to the development of HQ USAF/SG's MSP).

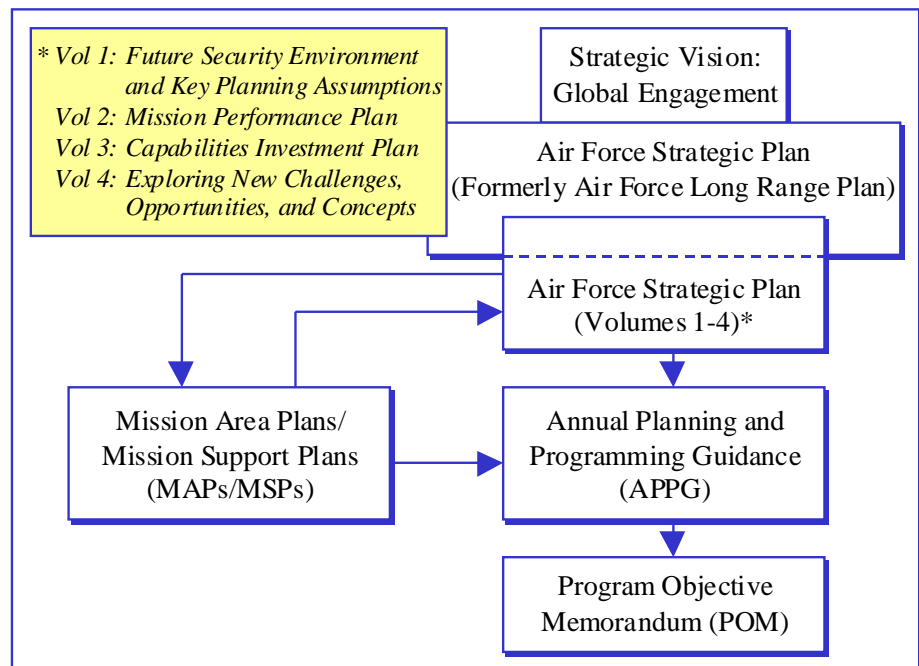


Figure 3. Overview of the Air Force Strategic Planning Process

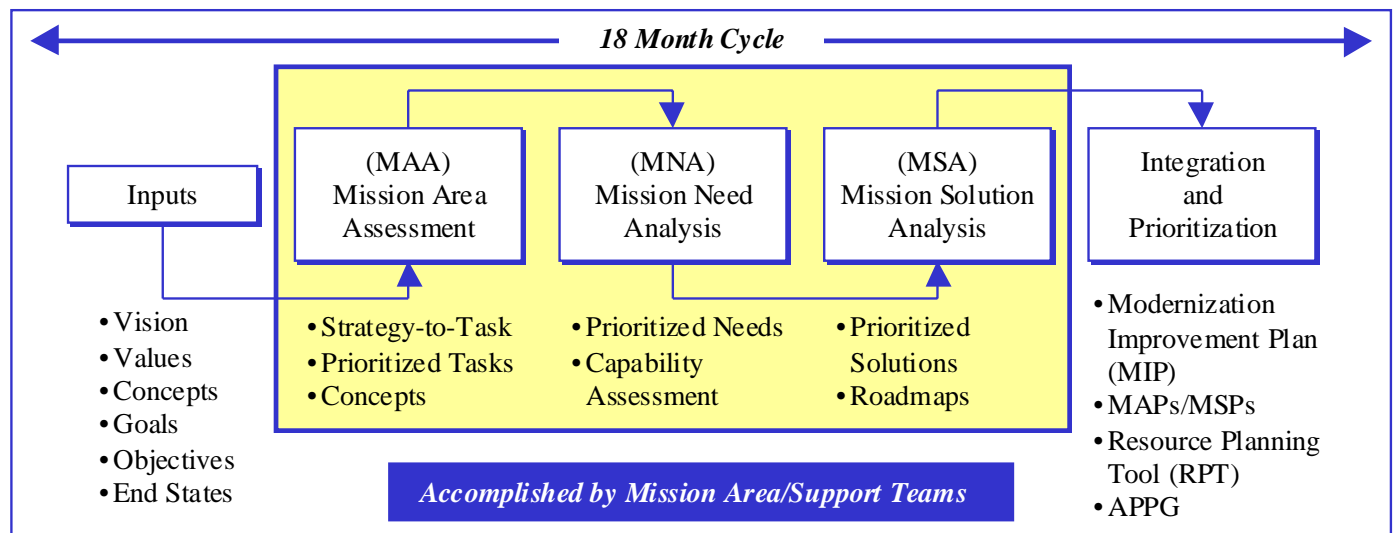


Figure 4. Overview of the Air Force Modernization Planning Process

Another key feature to the process described in Figure 3 is the development of the Annual Planning and Programming Guidance (APPG). The APPG represents the best effort of the HQ USAF programming staff to express the "corporate priorities" of the Air Force and serves as a front end guidance to MAJCOMs/Functionals/DRUs/FAOs to build the FY00-05POM. In summary, *Global Engagement* is implemented through an integrated system of planning mechanisms that include the Air Force Strategic Plan, MAPs, APPG and the POM.

For further information regarding the Air Force Strategic Planning Process and for copies of the APPG, see the USAF/XP's homepage at <http://www.xp.hq.af.mil/xpx>. ■

ESOH TPIPT's NEEDS-TO-SOLUTION PROCESS SUPPORTS THE OCCUPATIONAL HEALTH STRATEGIC PLANNING PROCESS

The Environment, Safety, and Occupational Health Technical Planning Integrated Team (ESOH TPIPT) offers MAJCOMs and installations a process to develop ESOH "Needs-to-Solution" sets in support of various components of the Air Force modernization planning process. This article summarizes how the ESOH TPIPT Needs-to-Solution process has supported the Occupational Health (OH) strategic planning process.

Figure 5 links the ESOH TPIPT's products and services to the strategic vision and goals of the Air Force

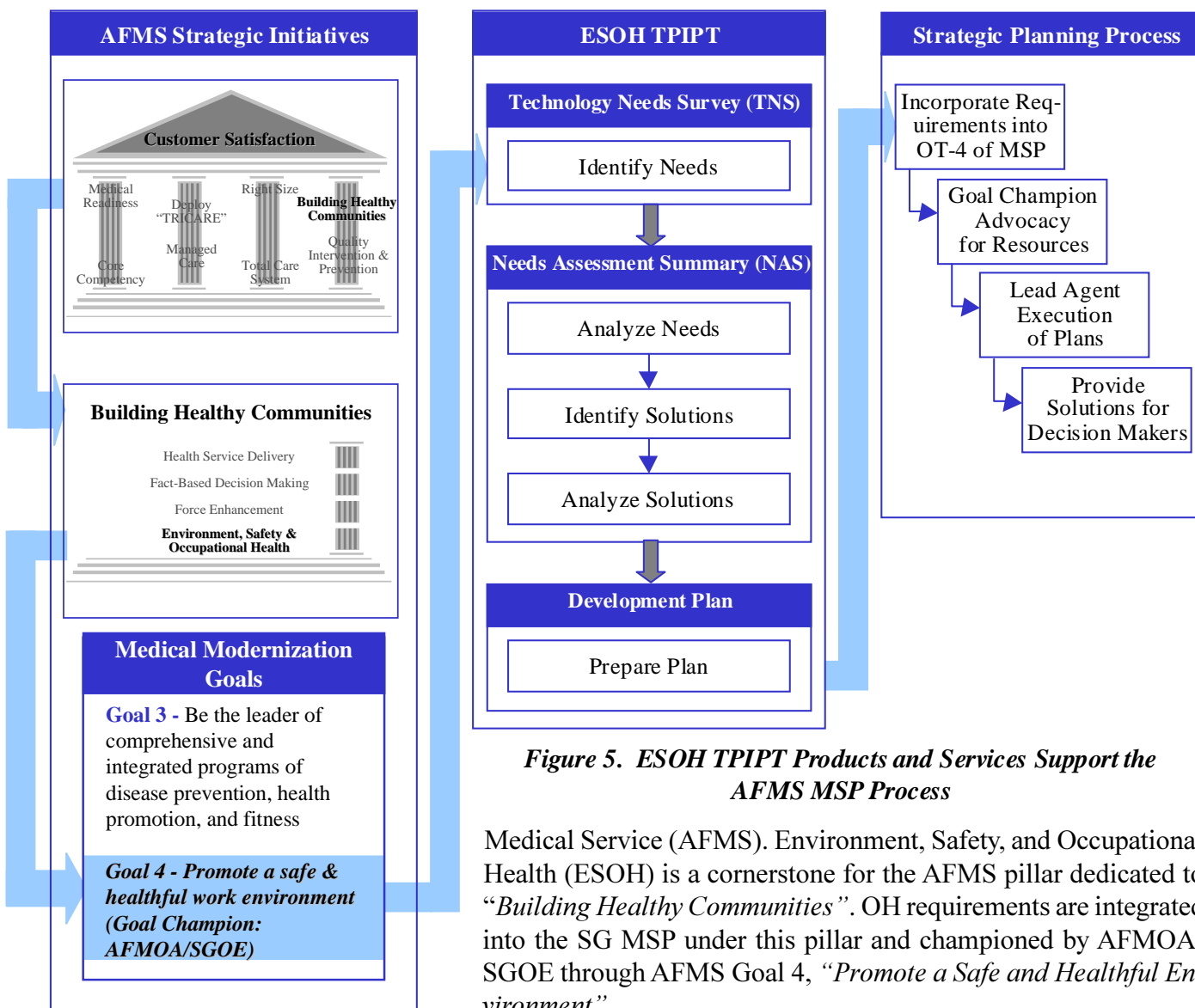


Figure 5. ESOH TPIPT Products and Services Support the AFMS MSP Process

Medical Service (AFMS). Environment, Safety, and Occupational Health (ESOH) is a cornerstone for the AFMS pillar dedicated to "Building Healthy Communities". OH requirements are integrated into the SG MSP under this pillar and championed by AFMOA/SGOE through AFMS Goal 4, "Promote a Safe and Healthful Environment".

The ESOH TPIPT has collected OH needs, developed Needs Assessment Summaries (NAS), and written Development Plans in support of modernization planning initiatives under AFMS Goal 4. One of the successes of this effort has been the inclusion of 251 different OH requirements in the current USAF/SG MSP.

The ESOH TPIPT Needs-to-Solution process has also served as the foundation for the development of the AFMS Goal 4 Investment Strategy (see related article on [page 5](#)). Products generated

Systemic Needs	Lead MAJCOM
Range Operations	ACC
Space Launch	SPACECOM
Deicing	HQ USAF/ILEV
Hearing	AMC
Ergonomics	AFMC

Systemic Needs Identified by the Needs-to-Solution Process

by the ESOH TPIPT are critical to ensure the effective resource allocation for systemic needs that impact multiple MAJCOMs and/or Functionals.

For additional details related to the integration of OH requirements in the AF/SG MSP, please contact Col George New at DSN 297-4332. For additional details related to the products and services of the ESOH TPIPT, please contact Lt. Col Brian McCarty at DSN 240-4466 or visit the ESOH TPIPT site at <http://xre22.brooks.af.mil/hscxre/xrehome.htm>. ■

AIR FORCE'S "CORPORATE" INVESTMENT STRATEGY TO ADDRESS SYSTEMIC OCCUPATIONAL HEALTH NEEDS RESULTS IN A SIGNIFICANT COST AVOIDANCE/SAVINGS

"While our goal is to enhance the health and well-being of our AF workforce, we can apply the ESOH TPIPT process and Investment Strategy to target those areas of greatest concern (i.e., ergonomics) and maximize our limited resources to ensure our people are protected."

Col Wiley Taylor, AFMC Command Bioenvironmental Engineer

As discussed in an earlier article, the Air Force Surgeon General has aligned medical operations under five "Goal Champions" (see Figure 5 on [page 4](#)). Under Goal 4, "Promote a Safe and Healthful Environment", Col. George New (AFMOA/SGOE) has been charged by the Air Force Surgeon General with the primary responsibility for the Air Force's Occupational Health Program.

AFMOA/SGOE has established a corporate strategy from "Plan-to-Execution" for operational investments related to AFMS Goal 4. The foundation of this Investment Strategy are the products of the ESOH Needs-to-Solution Process, which include the Technology Needs Survey (TNS), Needs Assessment Summaries (NAS), and Development Plans.

The ESOH TNS identification process, developed by the ESOH Technical Planning Integrated Product Team (TPIPT), collected seven needs specifically related to the Occupational Health Program, Ergonomics. Ergonomics is tailoring the work environment to the individual to promote health and wellness.

Analysis of these needs revealed some common attributes. Two of the most critical attributes were the need and importance of a clear programmatic direction and the need for better risk-based information to focus the limited programmatic resources. Some of the key statistics from further analysis related to the Air Force's ergonomics requirements have been summarized in Figure 6. Additionally, Occupational Safety Health Administration (OSHA) statistics indicate that comprehensive safety and health programs can realize up to 85% savings in indirect compensation costs. Further OSHA estimates that for every \$1 of direct costs (i.e., compensation),

- Almost 40% of the Air Force's \$119M annual compensation expenditure is related to ergonomic illnesses and injuries.
- 95% of Air Force ergonomic compensation claims are related to back injuries and account for approximately \$40M per year in claims.
- 89% of the Air Force's ergonomic compensation claims are clustered in one Major Command - Air Force Materiel Command (AFMC).
- Within AFMC, 6 installations account for 78% of the total Air Force problem.

Figure 6. Key Statistics Related to the Air Force's Ergonomics Program

a normal organization spends an additional \$5-\$50 in direct costs (i.e., loss productivity, medical, accidents). Therefore, a \$2M Occupational Health Program, indirectly can cost the Air Force \$100M. Translated into warfighters capabilities, this is equivalent to the costs associated with 50,000 flight hours for the F-16.

Specifically for the Air Force's Ergonomics Program, AF/SG initially programmed over \$6M to initiate and execute the program. Through the Needs to Solution process and Investment Strategy, this requirement was honed to approximately \$600K. The linking of these two cutting edge modernization strategies not only will save critical resources, but place the focus on improving the operator's work environment. The product or outcome is enhanced operational capability and reduced occupational illnesses and injuries.

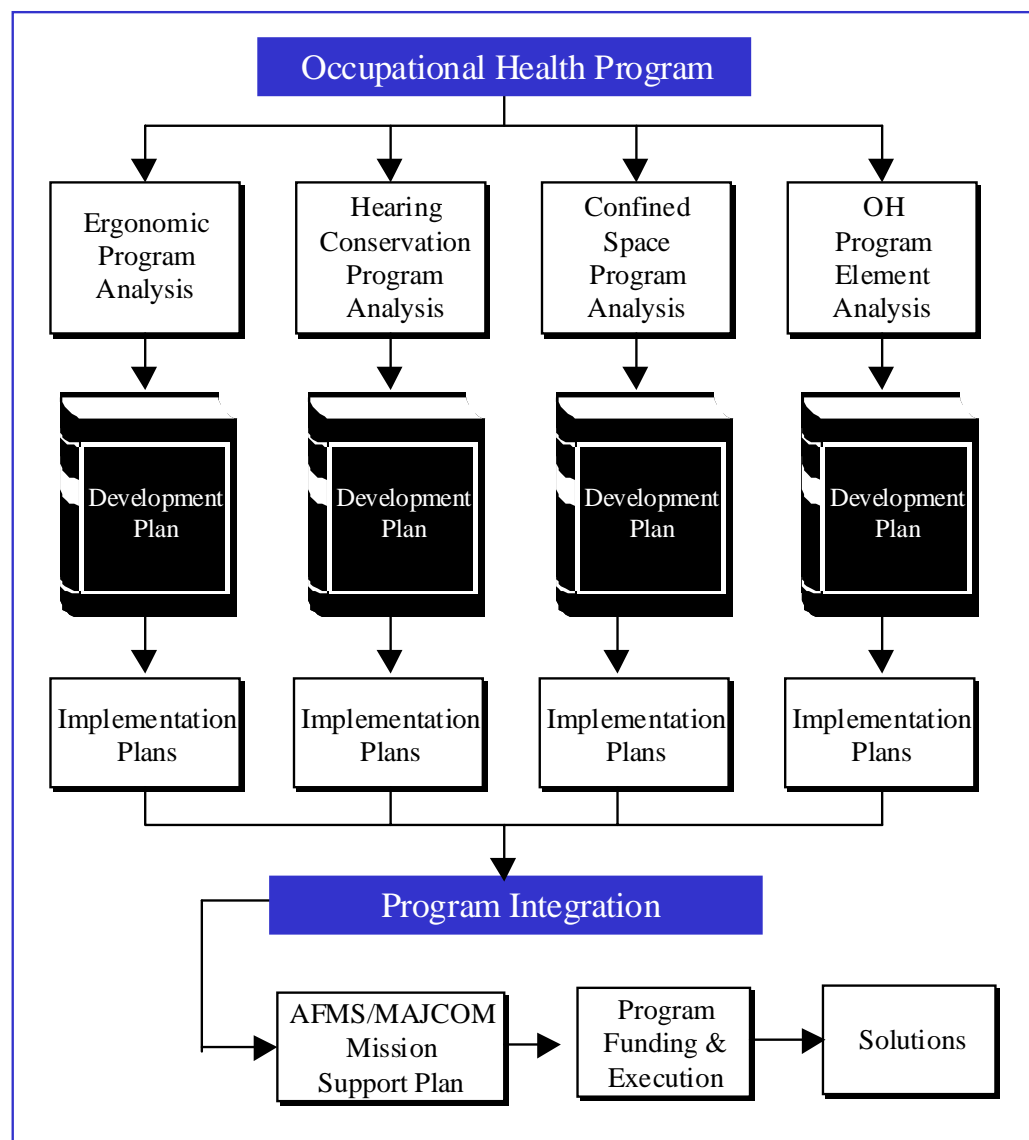


Figure 7. Occupational Health Program Investment Strategy

The Investment Strategy, currently being prototyped for the Ergonomics Program, will be used across the AF OH Program to improve execution of each of the individual OH Program Elements (see Figure 7). The OH Program is built through analysis of the OH needs collected from installations and MAJCOMs. The collected needs identify specific problem areas and/or areas of improvement. The needs analysis is also used as the basis for preparing Development Plans, which outline the roadmap for program execution (cost and schedule) and implementation. Detailed Implementation Plans are then prepared based on the Development Plans and show the specifics for program execution.

For further information, please contact Maj Art Kaminski, AFMOA/SGOE at DSN 297-4331 or Capt Darryl Sumrall, AFMC/SGC at DSN 787-2618. ■

COMMUNITY CROSS-FEED

LT. COL RICHARD ASHWORTH, HQ AFMC POLLUTION PREVENTION CHIEF, SPEAKS WITH THE MONITOR



Lt. Col. Richard Ashworth has served as the HQ AFMC Pollution Prevention Chief since November 1995. Prior to this assignment, he served as the Deputy Director of Technology for OC-ALC. Recently, Lt. Col. Ashworth spoke with the MONITOR regarding P2 initiatives at AFMC.

Q. Can you tell us what were some of the challenges/state of affairs when you first took over your job as the Pollution Prevention Chief in November 1995?

- A. In 1995, the Pollution Prevention Program was essentially a two-year-old program that was healthy and growing. At that time, the Program was driven by the Ozone Depleting Substance (ODS)/EPA-17 requirements with the focus being on the number of pounds reduced or eliminated. In 1996, AFMC declared victory on both of these initiatives by surpassing annual Air Force goals.

The following year, we were faced with the challenge of managing a growing program that was financially constrained. Earlier, when there were enough resources, essentially all valid requirements identified by the bases could be funded and executed. In the new environment of a declining budget, the following questions had to be asked, "Where does investing in P2 make the most sense? What should be the priority and focus of the P2 Program?" In short, having declared victory on the ODS/EPA-17 requirements, we were faced with the challenge of putting a face on the P2 Program in light of a declining budget and no new clear driver for the program.

Q. How did you and your staff go about solving these new challenges?

- A. With the ODS/EPA-17 reduction, the focus of the P2 Program had been based on pounds reduced. Our focus was to put a face on the P2 Program that was business oriented. In essence, we saw P2 not so much as a program but rather as a mind set. P2 tools and tactics that focus on source reduction represent a smart way of doing business by identifying the best decisions related to environmental management. For example, the P2 mindset can be used to address the cost and risk associated with a NPDES sampling point, a compliance issue. Using the P2 mentality, a series of questions can be asked to drive at the root cause of the compliance condition associated with the sampling point in order to make the best business decision. Analyzing the root cause drivers may indicate that eliminating the process that's generating the waste is too expensive and that an end-of-pipe solution is the more cost-effective choice. The questions need to be asked and the P2 mindset adopted in order to reduce the cost of doing business. Such an initiative not only reduces risk and liability through direct cost savings, it also reduces the risk to the mission.

Our office has been developing a business strategy for the AFMC P2 Program that emphasizes source reduction. Such a focus ensures implementation of best business practices, risk reduction, and return on investment. Early in the process, we brought pollution prevention organization representatives from the command to WPAFB to get their buy-in and their input toward this new direction. One of the foundations for the Business Plan has been establishing and refining the project Prioritization Strategy. The strategy is based on eight criteria emphasizing compliance reduction and cost effectiveness. During the initial meeting, the bases, in conjunction with HQ AFMC, participated in a series of strategic and business planning efforts. This initiative has been followed up with routine VTCs with the bases and annual cross-feed and validation meetings at HQ AFMC. Often it is too easy to press forward with initiatives without implementing a feedback loop. The annual command-wide project/program reviews help support this feed-

back. Also, they keep the command P2 organizations informed about each other's activities. I know from my experience at Tinker AFB that this type of communication was something that was missing and yet needed.

Q. What have been the biggest challenges in moving towards this business based focus?

- A. The P2 Program, like many other AFMC programs, has been faced with the challenge to develop policy/guidance that is relevant to the small and large bases as well as product centers and laboratories in the command. For the P2 Program, this is further compounded by our cross-functional emphasis that includes the weapon system focus. No other environmental management program has this focus. The other major challenge has been linking a tangible driver to the program. Our new initiative of achieving Compliance through Pollution Prevention (CTP2) provides such a driver and is in alignment with General Babbitt's efforts to bring a business based approach to AFMC.

As I said earlier, focusing on pounds reduced does not provide a meaningful output to the P2 Program. Compliance driven services provide a level of output that can be quantified and unit cost measures established. Currently, AFMC has over 18,000 compliance sites that represent an opportunity to fail with the regulators. In the future, one of the services provided by the P2 program will be to help our customers reduce their compliance burden and liability by focusing P2 initiatives on the 18,000 plus compliance sites. Additionally, focusing on the reduction of compliance sites is a goal that is applicable to both the small as well as the large base.

From the weapon system perspective, the future challenge is to further focus our investments. The question to ask is "If you only had \$1, where would you invest it?" So even though many of the weapon system related projects may individually provide excellent rates of return, the question remains, how important is the project programmatically. The P2IPT has defined the major ESH problem for the weapon system as being related to HAZMAT use for aircraft maintenance activities. There are multiple weapon system components that impact this issue and hence multiple ESH related projects to address them. The challenge lies in developing a programmatic investment strategy to identify priorities.

Q. What do you see as the biggest accomplishments that the Pollution Prevention Program has achieved during this time?

- A. Our achievements include the following:
1. Hazardous Material/TRI/ODS Reductions.
 2. Building a P2 Program on a business based focus.
 3. Establishing a rigorous project validation process.
 4. Conducting strategic planning and establishing new goals.

Q. What do you see as the future challenges for the Pollution Prevention Program?

- A. The budget will continue to remain a challenge for the program. The other challenge is going to be to show the true benefit of the P2 Program, which means collecting the data to support these initiatives. The benefits and the data are often related to environment, safety, health, operations, and production related issues and the systems are not in place to collect data that support P2 investments. Ultimately, to be able to put a business face on the P2 Program, the quality of the data that shows how we are accomplishing our business better, faster, and cheaper becomes critical.

Q. What has been your experience serving as the chair on the HQ AFMC P2IPT?

A. Although IPT environments are challenging, they are absolutely necessary for a program that is cross-functional. The benefits are significant and often you have to move slow in order to go fast. What I mean by that is once a decision is made in this environment, the different view points generate a high quality decision that does not again have to be revisited. I have found the HQ AFMC P2IPT members to be all very dedicated and caring people and it has been a pleasure to work with them.

On 13 July 1998, Lt. Col. Ashworth began his new position as the Commander to HSC DET 3 in Okinawa, Japan. The Pollution Prevention community wishes to thank Lt. Col. Ashworth for his leadership in setting a new course for this program and wishes him success in his new venture. On 1 July 1998, Major Lyn Gemperle began serving as the Chief of the AFMC Pollution Prevention Program. ■

PERSPECTIVE ON THE FUTURE CHALLENGE FOR THE AIR FORCE ENVIRONMENT, SAFETY, AND HEALTH (ESH) COMMUNITY

On 31 July 1998, Lt. Col. Gil Montoya, Chief, Pollution Prevention Division (ASC/EMV) will be retiring after 30 years of service with the Air Force. Prior to his current position at ASC/EMV, Lt. Col. Montoya served at Wright Laboratory and was a part of the team that published the Pollution Prevention Pillar Needs Assessment Report. Lt. Col. Montoya's vision of the challenge facing the ESH community is provided below.

The future challenge is to tie Environment, Safety, and Health (ESH) related issues to cost, schedule, and performance through a risk based management strategy. "What risks does the Single Manager face to cost, schedule, and performance if ESH related issues are not addressed?" To fundamentally improve our current processes, the environmental community should place its focus on how ESH issues impact cost, schedule, and performance and effectively communicate those impacts to the customer, the MAJCOM.

ESH awareness is high within ASC, however, the environmental community must also work with the MAJCOMs as allies to convey ESH requirements to the Single Manager. To date, the ASC/EMV co-locates have had great success in incorporating appropriate ESH related issues into day-to-day program office business practices. However, many specific processes to help the Single Manager execute DoD and Air Force requirements must still be developed. From a strictly business perspective, the environmental community must provide appropriate information to the MAJCOMs to make informed decisions about ESH and their weapon systems.

Lt. Col. Gil Montoya
Chief, Pollution Prevention Division
Acquisition Environmental Management

The September 98 issue of the MONITOR will summarize ASC/EMV's historical efforts to meet this challenge and its future initiatives towards this direction. The ASC/EMV staff and the ESH community thanks Lt. Col. Montoya for his service to the Air Force and extend best wishes for future success. ■



THE MONITOR ON INTERNET

This issue of the MONITOR is available on the Internet at both the HSC site (<http://www.brooks.af.mil/HSC/EMP/Monitor/Monitor.html>) and at the ASC site (<http://www.ascem.wpafb.af.mil>). The current issue of the MONITOR is in a Portable Document Format (PDF) file which requires a reader program for viewing or downloading. The Adobe Acrobat reader is available for downloading at not cost. ■

ACQUISITION-SUSTAINMENT PARTNERSHIP: JOINT ACQUISITION SUSTAINMENT POLLUTION PREVENTION ACTIVITY (JASPPA)

DoD representatives are currently developing the details and concepts of operations for a new DoD environmental group that will focus on identifying common DoD environmental problems and will actively pursue Demonstration/Validation and migrate new technology across the Services and among weapon system contractors to address these common problems. The vision for this joint integration is summarized in Figure 8 and details related to this new initiative are discussed below.

The development of the Joint Acquisition Sustainment Pollution Prevention Activity (JASPPA) is a joint Service response to the Joint Logistic Commander's (JLC's) Memorandum dated 3 November 1997 that endorses acquisition-sustainment partnerships. JASPPA builds the link between the Joint Depot Environmental Panel (JDEP) and the Joint Group on Acquisition Pollution Prevention (JG-APP) in order to promote integrated activities between the acquisition and sustainment communities. The formal integration of these two groups will help break down barriers between acquisition and sustainment while also becoming more effective in helping reduce the total cost of ownership for weapon systems. The process by which JASPPA will execute its program will closely integrate the Acquisition Pollution Prevention Initiative (AP2I), the validated JG-APP methodology, and the JDEP cross feed initiatives.

JDEP was established in 1985 with a joint service depot focus and has been chartered by the Joint Policy Coordination Group-Depot Maintenance (JPCG-DM). Its mission includes monitoring the Service depots maintenance and environmental programs, assisting in attaining hazardous reduction goals established by DoD, and fostering the exchange of environmental technology information within the depot community. HQ AFMC/LG-EV is the Air Force Service principal to the JDEP.

JG-APP was chartered by the JLC in 1994 to focus on the weapon systems manufacturing process that will be advantageous to Department of Defense and industry. Its mission includes reducing hazardous materials by fostering joint service cooperation at contractor design, manufacturing, and re-manufacturing sites and building a bridge to Service depots. The Joint Pollution Prevention Advisory Board (JPPAB) is the working level group for the JG-APP. HQ AFMC/DRIE is the Air Force principal and currently chairs the JPPAB.

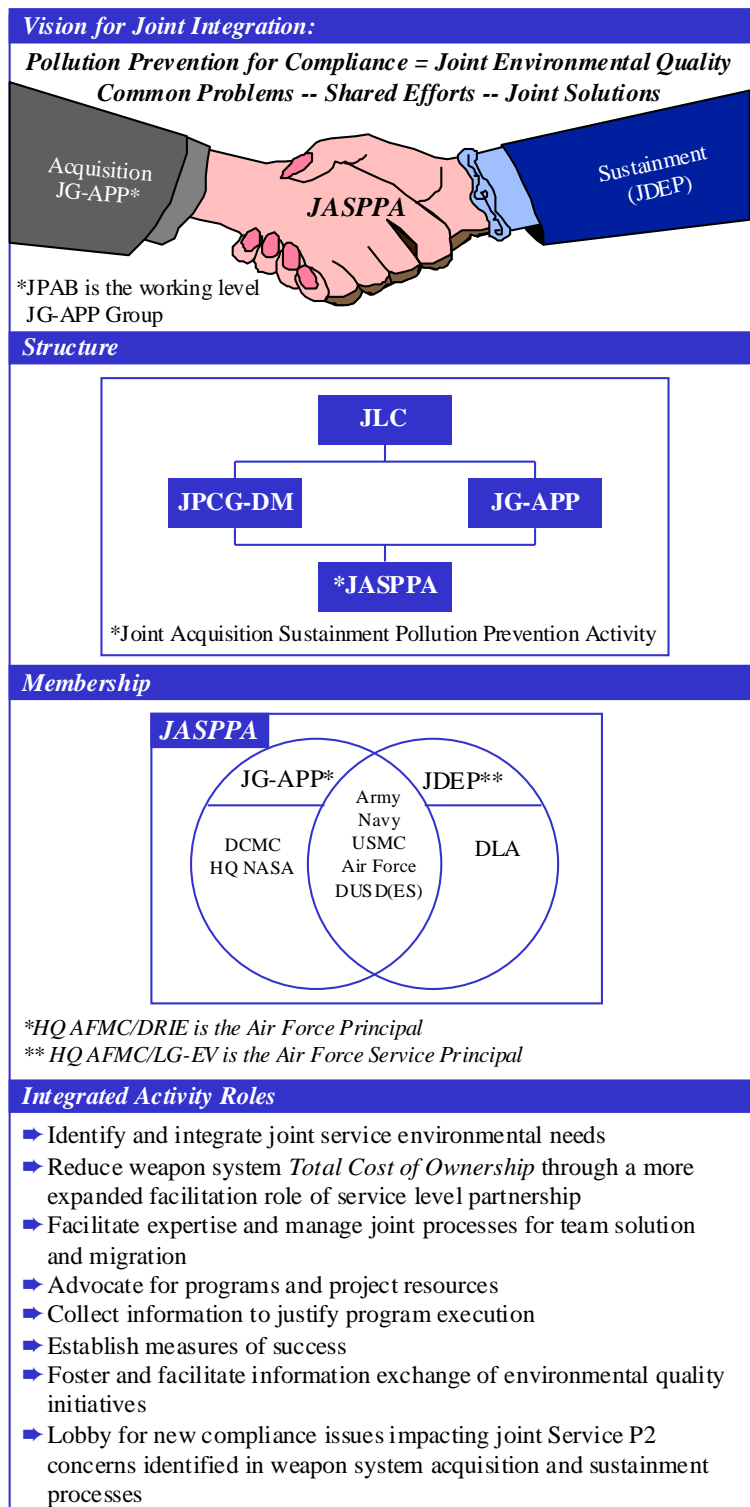


Figure 8. Overview of JASPPA

In response to the JLC Memorandum dated 3 November 1997 that endorses acquisition-sustainment partnerships, AFMC has established the Air Force Acquisition Sustainment Pollution Prevention Integration (ASP2I) activity. As a part of this initiative, AFMC/LG and DR have co-located its members in order to reduce duplication and provide better focus and support to customers in support of ASP2I activities. ASP2I will act as the integration activity between the Air Force acquisition and sustainment pollution prevention communities to establish and provide an integrated approach to leverage limited resources, sustain operational readiness and be good neighbors.

At a recent JDEP/JPPAB meeting, details related to the integrated acquisition-sustainment activity roles for JASPPA were outlined. JASPPA's mission will be to coordinate joint Service technical and business activities affecting joint environmental issues identified during the weapon systems acquisition and sustainment process from a total cost of ownership perspective. Ms. Meredith, AF JDEP representative, and Mr. Hill, AF JPPAB representative, hope to have the new charter signed by October 1998. They state that a lot of work still needs to be done before standing-up this new joint activity, however, the JDEP/JPPAB members have made a tremendous amount of progress to identify the functions and activities of JASPPA. Details related to JASPPA will be briefed to the JLC in October 98.

For further information related to JASPPA projects/initiatives, please contact Ms. Debbie Meredith, HQ AFMC/LG-EV, at DSN 787-3487 or Mr. Bob Hill, HQ AFMC/DR (LG-EV) DSN 986-3678. ■

UPCOMING EVENTS

Date	Meeting	Location	POC	Phone/E-mail
27 July 1998	Environment, Safety, and Occupational Health Policy Board	Pentagon Room IE801#7 1500-1700	Ed Dyckman ODUSD(ES) PI	(703) 614-3089 e-mail: edyckman@acq.osd.mil
11-13 Aug 1998	HCAT Meeting	Montreal Canada	Warren Assink	(937) 674-0151
16-21 Aug 1998	Improving the Practice of Pollution Prevention	Crested Butte, CO	Engineering Foundation Conferences	(212) 705-7836 FAX: (212) 705-7441 e-mail: engfnd@aol.com http://www.engfnd.org/7be.html
18-20 Aug 1998	Tri-Service Environmental Technology Workshop	San Diego, CA	Ms. Sonja Herrin	(757) 865-7604
19 Aug 1998	VTC CEVV	VTC Room, Bldg. 262 1200-1300	Milt Rindahl	DSN 787-7414
23-28 Aug 1998	1998 ACEEE Summer Study on Energy Efficiency	Pacific Grove, CA	ACEEE	(202) 429-8873 FAX: (202) 429-0193 http://acee.org
24 Aug 1998	ESOH TPIPT Meeting	San Antonio, TX 0800-1200	Lt Col Brian McCarty	DSN 240-4466
25-28 Aug 1998	3rd Annual Joint Service P2 Conference and Exhibition	Henry B. Gonzalez Convention Center, San Antonio, TX	National Defense Industrial Association	(703) 522-1820 FAX: (703) 522-1885
02 Sep 1998	Weapon System P2 Center Working Group VTC	1100-1200 Eastern Time	Mr. Peter Logan	DSN 478-4536
24-26 Sep 1998	International Energy & Environmental Congress	Chicago, IL	Cindy Stringer	(770) 297-4932